

ONE-STEP PROCEDURE PURIFIES



MONOCLONALS

Bio-Rad's DEAE Affi-Gel® Blue has been used successfully to purify rabbit and human IgG from whole serum. Now it's been reported¹ that this same one-step chromatographic procedure can be used to purify mouse monoclonal antibodies directly from ascites fluid under mild conditions—pH 7.2. The resulting IgG fraction is free of protease and nuclease activity and is stable to long term storage. The authors include a chromatogram (Fig. 1) showing the separation of IgG₁. The procedure is also effective for IgG₂.

1. Bruck, C., Portetelle, D., Gilneur, C. and Bolland, A., *J. Immunol. Methods*, 53, 313 (1982).

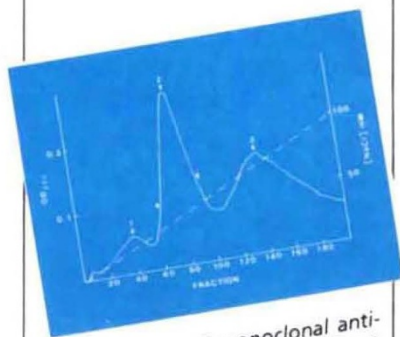


Fig. 1 Elution of monoclonal anti-urokinase antibodies (IgG₁) from a DEAE Affi-Gel Blue column.

See us at The American Society of Biological Chemists / AAI Booth S-3

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● The new brain slice chamber from Medical Systems Corporation of Great Neck, New York features a single base unit and two interchangeable top units. The Haas top configuration utilizes semi-submersion techniques, providing good stability for intracellular recording and rapid exchange for perfusion fluids. The Zbicz top is designed to maintain viable slices of tissue submerged under a constant flow of perfusing liquid. A range of techniques can be used for evaluation of drug actions. Cell longevity of 10 or more hours is possible. A companion temperature controller is offered which functions with either top chamber and regulates temperature 30° – $40^{\circ} \pm 0.2^{\circ}\text{C}$.
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● Dynatech Laboratories' AM572A multi-purpose Autowash washer/aspirator can deliver wash fluid and aspirate a complete 96-well MicroElisa plate in 60–90 seconds, depending on the specific test requirements. The machine is therefore suitable for the smaller laboratory with a limited through-put of Miro-Elisa tests as well as being capable of handling the demands of the large-scale user. It can also be used in certain RIA and blood-transfusion applications. A simple but accurate depth adjustment on the wash/aspirate manifold makes the AM52A Autowash particularly suited to working with tissue culture monolayers.
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● A new test kit for the determination of angiotensin converting enzyme (ACE) in serum is available from Boehringer Mannheim. The colorimetric assay is based on the ability of ACE to convert hippury-glycyl-glycine into glycyl-glycine which is converted to trinitrophenyl-glycyl-glycine by trinitrobenzylsulphonate. The absorbance of trinitrophenyl-glycyl-glycine is measured at 420 nm. The test requires a sample of only 10 μl .
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● Very low levels of NADH and NADPH can be detected using the new LKB bioluminescent assay. The reagents use bacterial luciferase coupled to a specific oxidoreductase enzyme. There are therefore two reagents, one for NADH, the other for NADPH. These reagents give a vastly improved (1,000-fold) sensitivity compared with spectrophotometric assay for NADH, NADPH and associated enzyme assays. An application paper is available from LKB.
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● New from Cruachem, ColorTAG monomers can be used during the synthesis of a mixed DNA probe to determine the success or failure of a mixed addition. The deprotection effluent from each of the monomers is a distinctive colour and so the actual nucleotide ratio at a degenerate site can be determined by visible spectroscopy. This provides confirmation that all possible sequences are indeed present in a mixed probe.
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● For decontamination of laboratory glassware used with radioactive solutions, ICN Radiochemicals is marketing Dekasol. After a 24-hour soak at room temperature in 5% Dekasol and distilled water, residual activity for carbon-14, tritium and phosphorus-32 is usually 0.2% of the original activity. For more stubborn radioactive substrates, such as those containing iron-49 and iodine-131, soaking in a 20% solution of Dekasol at 50°C for 2 hours provides effective decontamination.
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● Zetabind is a charge-modified membrane matrix for DNA, RNA and protein transfer applications. Manufactured by AMF Cuno, Zetabind is composed of charge modified nylon 66 which results in an electrostatic adsorption of anionic macromolecules. Binding capacities of 480 $\mu\text{g g}^{-1}$ have been reported and this highly efficient binding permits re-use of transfers for re-probing. Zetabind, unlike DBM and DPT papers, does not require chemical activation and can be stored indefinitely at room temperature. Efficient binding of anionic macromolecules in low salt buffers permits electrophoretic transfers from gels. It also provides enhanced binding for capillary blots.
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Frozen serum panels from NCI

A VARIETY of serum components (including peptide hormones, viral antigens, isoenzymes, glycoproteins, antibodies, immune complexes, tumour-associated antigens, carbohydrates, phospholipids and nucleotides) have been reported to be useful in cancer diagnosis and/or in monitoring cancer treatment or recurrence. The US National Cancer Institute is interested in evaluating serum assays that are potentially useful in the diagnosis of cancer. Coded panels composed of 1 ml aliquots of pretreatment frozen sera from patients with various neoplasms, from benign disease patients and from healthy controls are available to investigators to evaluate assays in which preliminary results indicate the ability to discriminate between cancer patients and controls. Promising results may form the basis for a subsequent grant application. Preliminary data documenting a useful test must be submitted and should include: a brief description of the assay, results of patients with cancer, results of patients with non-malignant disease, results in healthy control subjects and reprints of published work, if available. Request for a coded serum panel should be sent to: Diagnosis Serum Panels, Project Officer NCI-Serum Bank, Diagnosis Branch, Westwood Bldg., Room 10A10, 5333 Westbard Avenue, National Cancer Institute, National Institutes of Health, Bethesda, MD 20205. □